CLAIMS:

1. A projection system for image reproduction by means of at least one lamp (10) as well as at least one sensor (30; 301, 302, 303) for generating a sensor signal for monitoring changes in the luminous flux generated by said at least one lamp (10) and for compensating these changes through a suitable control of the image reproduction, with a device (31; 32; 36, 37; 43; 431) for eliminating substantially periodic interference components from the sensor signal generated by the at least one sensor (30; 301, 302, 303).

2. A projection system as claimed in claim 1, wherein said device comprises a comb filter (32) for filtering the sensor signal and for at least substantially suppressing frequency components of the sensor signal generated by the interference components.

3. A projection system as claimed in claim 2, wherein the filter characteristic of the comb filter (32) is controllable by means of a signal synchronous with a control signal of a color modulator (12) which causes the interference components.

4. A projection system as claimed in claim 1, wherein the device comprises an amplifier (31) for the sensor signal whose amplification can be switched in accordance with the frequency of the interference components so as to achieve an at least substantial suppression of the interference components.

5. A projection system as claimed in claim 1, wherein the device comprises a unit (36; 36a) for generating a sliding average of the sensor signal synchronized with the interference components, as well as a subtractor (37; 37a) for subtracting this sliding

average from the sensor signal.

6. A projection system as claimed in claim 5, with a micro controller (431) with a digital signal processing which comprises an analog/digital converter (A/D) for digitizing the fed sensor signal, the unit (36a) in a digital embodiment and a digital/analog converter (D/A) for converting the digital average value of the sensor signal generated with said unit (36a) into an analog sensor signal.

7. A projection system as claimed in claim 6, in which the micro controller (431) comprises the subtractor (37a) in a digital embodiment wherein one input of the subtractor (37a) is connected with the output of the unit (36a) and the other input is connected with the output of the analog/digital converter (A/D) and wherein the output of the subtractor (37a) is connected with the input of the digital/analog converter (D/A).

8. A projection system as claimed in claim 7, in which the micro controller (431) instead of the digital/analog converter (D/A) comprises a transmitting unit (435) for generating a modulated sensor output signal for transmitting the same to a lamp driver unit (40).

9. A projection system as claimed in claim 6, in which the micro controller (431) is provided for generating a synchronicity signal on the basis of an analysis of the sensor signal which is fed to the micro controller (431), with respect to periodically repeating wave forms, wherein the synchronicity signal is used for slidingly averaging the sensor signal.

10. A projection system as claimed in claim 1, with a color modulator (12) for a time-sequential generation of primary colors, wherein said device comprises a filter arrangement (310, 320, 330) for splitting up a light portion guided in the projection system into the primary colors, as well as an arrangement (311, 321, 331; 312, 322, 332, 342) for the compensation of different sensitivities of the at least one

sensor (30; 301, 302, 303) to the primary colors through amplification and/or damping of the relevant primary colors.

11. A projection system as claimed in claim 10, wherein said arrangement for the compensation of the different sensitivities of the sensor comprises at least a transmission filter (311, 321, 331) having a suitably determined transmittance.

12. A projection system as claimed in claim 10, wherein a sensor (301, 302, 303) with an amplifier (312, 322, 332) is provided for each primary color, and wherein the amplification of at least one of the amplifiers is adjustable for compensating for the different sensitivities of the sensors (301, 302, 303) to the primary colors, and a mixer (342) is provided for mixing the output signals of the amplifiers.

13. A projection system as claimed in claim 1, with a lamp driver unit (40) comprising at least one of the sensors (30; 301, 302, 303) and / or the device (31; 32; 36, 37; 43; 431) for eliminating substantially periodic interference components from the sensor signal generated by the at least one sensor (30; 301, 302, 303), wherein at least one optical fiber is provided for connecting the at least one sensor optically with the light path of the light generated by the lamp (10).

14. A projection system as claimed in claim 1, wherein the control of the image representation can be achieved through a control of the brightness of the represented image.

15. A projection system as claimed in claim 14, wherein the brightness of the represented image can be controlled through a change in the lamp current.

16. A projection system as claimed in claim 14, wherein the brightness of the represented image can be controlled by an electrically controllable filter, and/or by a gray level mask added to the image information, and/or by a modification of the

switching periods of the display.

17. A projection system as claimed in claim 1, with a time-sequential color rendering, wherein the periodic interference components are generated by the primary colors generated by a color modulator, and wherein the primary colors can be adjusted by means of the device for eliminating the interference components such that the color temperature of the represented image is adjustable.